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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,336	06/12/2001	Fujio Seki	122.1456	2145
21171	7590	03/27/2006		EXAMINER
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			PICH, PONNOREAY	
			ART UNIT	PAPER NUMBER
			2135	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/878,336	SEKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ponnoreay Pich	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 28 December 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-37 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/28/2005 has been entered. Any well known art statements not argued by applicant in the prior office actions are taken as admittance of prior art as per MPEP 2144.03.

Claims 1-37 are pending.

### ***Response to Arguments***

Applicant's arguments have been considered. The examiner did not find the arguments persuasive. Further, upon examining the Beasley reference (US 5,721,842) in more detail and in giving further thought towards the language of the claims as currently recited, the examiner believes that the language of the claims are broader than the examiner originally thought and Beasley reads upon the limitation under contention: "said identification processing including utilizing an identifier corresponding to a connector through which a terminal is connected to encipher a received key code". Note that in the broadest reasonable sense, when one encipher something, one also encode it, i.e. arrange an input in a particular format, since the terms "encipher" and "encode" are often used interchangeably. Beasley does this to received key codes using an identifier, i.e. address, corresponding to a connector, i.e. sending card, through

which a terminal is connected (Fig 2B; col 5, lines 39-52; and col 6, lines 11-29 and 43-57).

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The examiner notes that numerous corrections have already been made to the specification by applicant to fix translation errors. The examiner respectfully requests that if applicant has a complete copy of the corrected specification that applicant supply the examiner with a copy also since it is more efficient to look for any other translation errors that might have been missed by looking at a single marked up copy rather than looking back and forth between the original specification and multiple separate substitution sheets. The examiner also believes that additional errors, if any are present, are more likely to be caught by looking at just one marked up copy of the complete specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claims 1-37 are indefinite because applicant's improper use of punctuation within the set of claims renders the meaning of one or more limitations unclear. For example, consider the last limitation of claim 1: "a security unit that executes for each terminal, identification processing..."; the last limitation of claim 4: "a switching unit that cancels a connection of the terminal has been connected to the shared computer, and switches the connection to a private computer corresponding to the terminal that cancels a connection of the terminal..."; and the limitation in claim 17: "a security unit that executes for each terminal identification processing on data...". It would appear in the example above given for claim 1 that there should be a comma after "executes". In the above example for claim 4, semi-colons should be used to separate the actions done by the switching unit since commas are already used within items in a particular listing, for example: "a switching unit that cancels a connection...; that cancels a connection...; and that disregards the connection...". In the above example given for claim 17, there appears to be a need for a comma after "executes" and after "terminal". The above examples are not an extensive listing of improper punctuation usage by applicant which renders the meaning of the limitations in the current set of claims indefinite. Applicant is urged to double check all the current set of claims to make sure that the manner in which applicant has chosen to use punctuation has not given rise to any ambiguities in the meaning of any limitation or claim.

2. Claims 1-37 are indefinite because applicant is seemingly inconsistent with the usage of "said" and "the" in referring to an item. Using claim 1 as an example, applicant refers to both "the terminal" and "said terminal". It is unclear if "the terminal" and "said terminal" is meant to refer to the same terminal or separate terminals. If applicant meant for "said terminal" and "the terminal" to refer to the same terminal, the examiner respectfully suggests consistently using either "said" or "the" as using both terms seems to imply that two separate terminals are being referred to. If applicant meant for "the terminal" and "said terminal" to refer to separate terminals, the examiner respectfully suggests making that clearer in the claims, i.e. perhaps via the use of such language as "the first terminal" and "the second terminal". This is not the only instance where applicant inconsistently used "the" and "said" in referring to an item. Applicant is urged to double check all the claims to make appropriate corrections.
3. As per claim 1, "at least one terminal" is recited in line 2. Later, "said terminal" and "the terminal" are recited. It is unclear which terminal(s) of "at least one terminal" are being referred to by "said terminal" and "the terminal".
4. As per claim 1, "at least one private computer" is recited in line 2. In line 6, "a private computer" is recited. Later in the claim, "the private computer" is recited. It is unclear if "the private computer" is meant to refer to "a private computer" of line 6 or one of the "at least one private computer" in line 2 and if so, which one of the "at least one private computer".

5. Claim 2 recites “the terminal corresponding to the at least one private computer”.

It is unclear to which terminal is being referred. Note that claim 1, from which claim 2 depends recites that there is “at least one terminal corresponding to the at least one private computer”.

6. Claim 2 recites “the terminal currently connected to the shared computer”, which lacks antecedent basis.

7. Claim 3 recites “the output data”. It is unclear to which output data is being referred. Note that claim 2 from which claim 3 depends recites more than one output data. Claim 9 has a similar problem.

8. Claim 3 depends indirectly from claim 1. The examiner notes that in reading applicant’s specification, it appears that “an identifier corresponding to a connector” as recited in line 11 of claim 1, which is utilized in an enciphering process, should be the same as “a number of each terminal” as recited in claim 3, which is used in enciphering and deciphering. However, because applicant has used two separate terms in the claims for what applicant’s specification has disclosed as being the same item (see p24-27 and Fig 6 of applicant’s specification), it would appear that the language of the claim is implying that “an identifier corresponding to a connector” in claim 1 is not the same as “a number of each terminal” as recited in claim 3. In other words, applicant seems to be claiming an invention that was not disclosed in the specification. It is unclear if applicant actually meant to claim an invention that was not disclosed in the specification. If applicant did mean to do so, the examiner notes that there may

be an enablement problem since what is described by the language of the claim may not be enough for one of ordinary skill to discern how to make and use the claimed invention, whereas if one were to claim an invention described in the specification, then one of ordinary skill would have the benefit of what is disclosed by the specification to gain an understanding of how to make and used a claimed invention. Applicant is strongly encouraged to rethink what is currently recited in claims 1-3 and try to more clearly define the invention claimed therein so that it is clear the security unit does the identification processing using an identifier corresponding to a connector, wherein the security unit comprises the components listed in claim 2 and that the enciphering of the identification processing is done according to what is recited in claim 3, wherein “a number of each terminal” of claim 3 is the same as “an identifier corresponding to a connector” as in claim 1. Note claims 9 and 21 have similar limitations as what is recited in claims 1-3 and have similar problems.

9. Claim 4 recites “a detecting unit that detects whether or not a key code of a predetermined key transmitted from any terminal has been received by a predetermined number...”. It is unclear how a number, which is an abstract concept, can receive anything. The examiner assumes applicant may have meant to refer to something which corresponds to a number that did the receiving rather than a number.
10. Claim 4 recites “the connection switching request” in the third to last line, which lacks antecedent basis.

11. Claim 4 recites “the corresponding terminal” in the second to last line, which lacks antecedent basis.
12. Claims 10 and 25 recites a similar limitation as claim 4 and contain similar problems.
13. Claim 7 recites “A switching method in a switching device”. A method is a way of doing something. It is unclear how a way of doing something can be “in” a switching device or any other device. Applicant may have meant that something along the lines that the method was utilized by a switching device.
14. Claim 8 recites “the security”, which lacks antecedent basis.
15. Claim 8 recites “the terminal corresponding to the at least one private computer”. It is unclear to which terminal is being referred. Note that claim 7, from which claim 8 depends recites that there is “at least one terminal corresponding to the at least one private computer”.
16. Claim 8 recites “the terminal currently connected to the shared computer”, which lacks antecedent basis.
17. Claim 13 recites “a terminal” in line 3. Later, claim 13 recites “each terminal” and “any one terminal”, both of which implies more than one terminal. This contradicts what was earlier stated—that there is “a” terminal, not more than one terminal, thus it is unclear if the system of claim 13 is meant to have one terminal or more than one terminal. Claims 17, 21, 25, 29, and 33 contain a similar problem.

18. Claim 13 recites “the shared computer”. It is unclear to which of the “at least one shared computer” recited in line 4 “the shared computer” is referring.
19. Claim 17 recites “the enciphering processing of the terminal corresponding to the at least one private computer” in lines 19-20, which appear to lack antecedent basis. The examiner notes that in lines 17-18, “an enciphering unit that executes an enciphering processing of each terminal” is recited, but it is unclear if the enciphering of lines 17-18 relates to the enciphering processing of lines 19-20.
20. Claim 17 recites “the enciphering processing local to the terminal currently connected to the shared computer”, which lacks antecedent basis. It is further unclear that “the terminal currently connected to the shared computer” has antecedent basis, since it does not appear any terminal earlier recited was established as being connected to the shared computer.
21. Claim 17 recites “the shared computer”. It is unclear to which shared computer of the “at least one shared computer” recited in line 4 is being referred.
22. Claim 17 recites “a terminal” in line 3 and “a terminal” in line 15. It unclear if applicant meant for there to be at least two separate terminals or if the terminal in line 15 is meant to be the same terminal of line 3. If more than one terminal was intended for the system, it is unclear to which of the at least two terminals are later being referred after line 15 since both the terminal of line 3 and line 15 are referred to as “a terminal”.
23. Claim 21 recites some limitations substantially similar to what is recited in claim 17 and contains similar problems.

24. Claim 25 recites “the corresponding terminal” in line 20, which lacks antecedent basis.
25. Claim 29 recites “a terminal” in lines 3 and 15. It is unclear if this is meant to imply that there is more than one terminal in the system of claim 29 or if the terminal recited in line 15 is meant to be the same terminal as the one in line 3.
26. Claim 37 recites “a connecting unit adapted to connect...”. It is unclear if the connecting unit is actually doing any connecting or if this language is meant to indicate an intended use for the connecting unit. Likewise, it is unclear if the identification processing unit actually utilizes an identifier or if the language used in the claim is meant to indicate an intended use for the identification processing unit.
27. Any claims not specifically addressed are rejected by virtue of dependency.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 7-8, 13, 17, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Beasley (US 5,721,842).

**Claims 1 and 7:**

As per claim 1, Beasley discloses a switching device for controlling a connection between at least one private computer, at least one terminal corresponding to the at least one private computer, and a shared computer that can be operated by the at least one terminal (Fig 1), the switching device comprising:

1. A connecting unit that connects each terminal to a corresponding private computer in default status and switches a connection destination of the terminal to a private computer corresponding to said terminal or the shared computer when a connection switching request transmitted from said terminal has been received (col 2, lines 56-64).
2. A security unit that executes for each terminal identification processing of data that has been received from any one terminal and output to the private computer or the shared computer (Fig 2B; col 1, lines 45-61; col 3, lines 4-16; col 5, lines 39-52; and col 6, lines 43-57), said identification processing including utilizing an identifier corresponding to a connector through which a terminal is connected to encipher a received key code (Fig 2B; col 5, lines 39-52; and col 6, lines 11-29 and 43-57).

Note in Fig 2B a key code is shown to be enciphered into a format which utilizes the identifier, i.e. address, corresponding to a connector through which a terminal is connected. The examiner is giving the broadest, reasonable meaning to the term "encipher", which is often used synonymously with the term "encode", which if applied to

data, means to place the data in a particular form or format, often for the purpose of hiding the original data. If one did not know the format of the data packet in Fig 2B, then one would not be able to properly decipher the data in the data packet.

Note that in applying the broadest, reasonable interpretation to the terms "private" and "shared" computer, there is not necessarily a difference between the two types of computer. For instance, a computer can be shared in that only two terminals are allowed access to it, but it can also be private if no other terminals but those two terminals are allowed access to it. In Beasley invention, computers A-C seen in figure 1 are both private and shared. They are private in that inherently only terminals connecting to the computers via the Beasley's switching system are able to access the computers. However, they are shared in that each of the terminals connected via Beasley's switching system are able to connect to any one of the computers in the switching system.

Claim 7 is substantially similar to claim 1. The difference is that claim 7 is directed towards a method which implements the switching device of claim 1. Claim 7 is rejected for substantially the same reasons given for claim 1.

**Claims 2 and 8:**

As per claim 2, Beasley further disclose wherein the security unit comprises:

1. An enciphering unit that executes an enciphering processing, local to each terminal, of data that has been transmitted from any one terminal and received by the switching device (col 1, last paragraph-col 2, line 4; col 3, lines 36-55; and col 6, lines 43-57).

2. A first deciphering unit that executes a deciphering processing corresponding to the enciphering processing local to the terminal corresponding to the at least one private computer, of the data that has been output from the switching device to any on private computer (col 1, lines 56-61 and Fig 1, item 70).
3. A second deciphering unit that executes a deciphering processing corresponding to the enciphering processing local to the terminal currently connected to the shared computer, of the data that has been output from the switching device to the shared computer (col 1, lines 56-61 and Fig 1, item 70). Note there are multiple deciphering units disclosed by Beasley (Fig 1, items 70).

Claim 8 is directed towards a method which utilizes the device of claim 2 and is rejected for the same reasons given above.

**Claim 13:**

As per claim 13, Beasley discloses at least one private computer; a terminal corresponding to the at least one private compute; at least one shared computer connected to a network (Fig 1); and a switching device as recited in claim 1. The rejection for the limitation of the switching device recited in claim 13 can be found in the rejection of claim 1. Note that in Fig 1, one can see that the switching device is disposed between the at least one private computer and the terminal, for relaying data between the terminal and the at least one shared computer.

**Claim 17:**

As per claim 17, the limitations recited therein are a combination of the limitations recited in claims 13 and 2, which were discussed as being disclosed by Beasley. Claim 17 is rejected for the same reasons given in claims 13 and claim 2.

**Claim 37:**

Beasley discloses:

1. A connection unit adapted to connect a terminal to a private computer or a shared computer (col 2, lines 56-64).
2. An identification processing unit coupled to said connection unit and adapted to utilize an identifier corresponding to a connector through which said terminal is connect to encipher a received code (Fig 2B; col 1, lines 45-61; col 3, lines 4-16; col 5, lines 39-52; and col 6, lines 43-57).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 9, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beasley et al (US 5,721,842) in view in view of Nelson, Jr. (US 5,675,653).

**Claims 3 and 9:**

Beasley does not explicitly disclose:

1. During the enciphering processing, the received data is bit shifted (by an enciphering unit) to a first direction between a highest bit and a lowest bit by only a number of each terminal.
2. During the first deciphering processing, the output data is bit shifted (by a first deciphering unit) to a second direction opposite to the first direction by a number of a terminal corresponding to the at least one private computer.
3. During the second deciphering processing, output data is bit shifted (by a second deciphering unit) to a second direction opposite to the first direction by a number of a terminal currently connected to the shared computer.

However, an enciphering unit in which data is encrypted by shifting bits in a first direction is not only known by one of ordinary skill in the art at the time of the applicant's invention, it is also disclosed by Nelson, Jr. (col 2, 1<sup>st</sup> paragraph). One of ordinary skill would recognize that to decipher the enciphered data, one would need only to shift the bits of the enciphered data in a direction opposite the direction used to encipher the data since enciphering and deciphering are often inverse operations. Further, the examiner has interpreted "a number of a terminal" to include an enciphering key uniquely associated with each terminal. The use of enciphering key is well known by one of ordinary skill at the time applicant's invention was made and disclosed by Nelson, Jr. (col 5, lines 15-20).

In light of the above, it would have been obvious to one of ordinary skill in the art to modify Beasley's invention according to the limitations recited in claims 3 and 9. One

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of ordinary skill would have been motivated to do so because it would make Beasley's switching device more secure.

Claim 9 differs from claim 3 in that claim 3 discloses a switching device, comprising an enciphering unit and a first and second deciphering unit, which utilizes the steps disclosed by the method of claim 9.

**Claim 21:**

As per claim 21, the limitations recited therein are a combination of the limitations recited in claims 17 and claim 3. Claim 21 is rejected for the same reasons given in claims 17 and 3.

**Claims 22-24:**

Claims 22-24 recite limitations similar to what is recited in claims 14-16 respectively below. Claims 22-24 are rejected for the same reasons given in claims 14-16 respectively below.

Claims 4, 10, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beasley et al (US 5,721,842) in view of Wilder et al (US 6,557,170).

**Claims 4 and 10:**

Beasley further discloses:

1. A switching unit that cancels a connection of the terminal when the terminal has been connected to the shared computer and switches the connection to a private computer corresponding to the terminal, that cancels a connection of the terminal

when the terminal has been connected to a private computer corresponding to the terminal and switches the connection to the shared computer (Fig 1, item 60).

Beasley does not explicitly disclose the following limitation, which is disclosed by Wilder:

1. A detecting unit that detects whether or not a key code of a predetermined key transmitted from any terminal has been received by a predetermined number during a predetermined period of time (col 2, lines 19-49; col 5, lines 54-64; and col 6, lines 28-35).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Beasley's invention such that it includes a detecting unit that detects whether or not a key code of a predetermined key transmitted from any terminal has been received by a predetermined number during a predetermined period of time. One of ordinary skill would have been motivated to do so because it would enable Beasley's invention to determine if the switching unit was malfunctioning. Being able to discern if a device was malfunctioning or not is a concern in many art areas.

Beasley and Wilder do not explicitly disclose the switching unit disregarding the connection switching request when a terminal other than the corresponding terminal has already been connected to the shared computer, at a time when the detecting unit has performed detecting. However, it is well known in the art to disregard a request to connect to a device when the device is busy already. At the time applicant's invention

was made, it would have been obvious to further modify Beasley's invention such that it disregarded connection switching request when a terminal other than the corresponding terminal has already been connected to the shared computer, at a time when the detecting unit has performed detecting. One of ordinary skill would be motivated to do so because it would ensure that only one person at a time is using a computer, which would enable a computer to function more efficiently since it does not have to share resources among multiple users.

Claim 4 discloses a switching unit which utilizes the methods and steps disclosed by claim 10.

**Claim 25:**

As per claim 25, Beasley discloses at least one private computer; a terminal corresponding to the at least one private compute; at least one shared computer connected to a network (Fig 1); and a switching device as recited in claim 4. The rejection for the limitation of the switching device recited in claim 25 can be found in the rejection of claim 4. Note that in Fig 1, one can see that the switching device is disposed between the at least one private computer and the terminal, for relaying data between the terminal and the at least one shared computer.

**Claims 26-28:**

Claims 26-28 recite limitations similar to what is recited in claims 14-16 respectively below. Claims 26-28 are rejected for the same reasons given in claims 14-16 respectively below.

Claims 5-6, 11-12, and 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beasley et al (US 5,721,842) in view of Onsen (US 6,473,811).

**Claims 5 and 11:**

Beasley does not disclose a posting unit that posts a connection status of the shared computer to each terminal. However, Onsen discloses this limitation (col 1, lines 29-39). One of ordinary skill in the art at the time of the applicant's invention would be motivated to incorporate a posting unit which displays connection status into a switching device as that would allow users to see which computers are already busy/connected to another terminal and thereby know to not waste time trying to connect to the busy computers.

**Claims 6 and 12:**

Onsen implicitly discloses the posting unit posts to each terminal that the shared computer is currently being used, when the shared computer is currently being used (col 1, lines 29-39).

**Claim 29:**

As per claim 29, Beasley discloses at least one private computer; a terminal corresponding to the at least one private compute; at least one shared computer connected to a network (Fig 1); and a switching device as recited in claims 1 and 5. The rejection for the limitation of the switching device recited in claim 29 can be found in the rejection of claims 1 and 5. Note that in Fig 1, one can see that the switching device is disposed between the at least one private computer and the terminal, for relaying data between the terminal and the at least one shared computer. Note also that claim 5

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recites “the shared computer” while claim 29 recites “at least one shared computer”.

However, the language of claim 29 still encompasses what is recited in claim 5, thus the rejection of claim 5 still applies.

**Claims 30-32:**

Claims 30-32 recite limitations similar to what is recited in claims 14-16 respectively below. Claims 30-32 are rejected for the same reasons given in claims 14-16 respectively below.

**Claim 33:**

Claim 33 as recited incorporates limitations from claims 29 and claim 6. The rejection of the limitations recited in claim 33 can be found in the rejection of claim 29 and claim 6.

**Claims 34-36:**

Claims 34-36 recite limitations similar to what is recited in claims 14-16 respectively below. Claims 34-36 are rejected for the same reasons given in claims 14-16 respectively below.

Claims 14-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beasley et al (US 5,721,842).

**Claims 14 and 18:**

Beasley does not explicitly disclose wherein at least one shared computer is connected to a second network independent of said network. However, the examiner

would like to take official notice that computer systems and networks wherein at least one computer (shared or private) that is connected to a further/second network independent of said network have existed before the time applicant's invention was made. One of ordinary skill in the art would be motivated to connect a shared computer to a further independent network as this would allow more access of information for the users Beasley's invention.

**Claim 15 and 19:**

Beasley does not explicitly disclose wherein the network is the Internet. However, the examiner would like to take official notice that a network being the Internet, which is connected to a computer of any sort has been known to exist before the time applicant's invention was made. One of ordinary skill in the art would be motivated to connect a shared computer to a further independent network where the network is the Internet because it would allow users of Beasley's invention to have access to one of the largest source of information on the planet.

**Claim 16 and 20:**

Beasley does not explicitly disclose wherein the second network is an intranet. However, the examiner would like to take official notice that a further/second network being an intranet has existed before the time applicant's invention was made. One of ordinary skill in the art would be motivated to connect a shared computer to a further independent network as this would allow more access of information for the users of the Beasley's invention. Some of the information may be obtained only by being connected to an intranet, which contains restricted information.

***Allowable Subject Matter***

Claims 3 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 21-24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The examiner notes that there is art rejection for claim 3 above. The reason for this is that the examiner is applying more than one interpretation to the limitations recited therein. In the sense that “a number of each terminal” as recited in claim 3 is different from “an identifier corresponding to a connector” as recited in claim 1, the claim is not allowable over the prior art. However, the examiner notes that an invention of this interpretation is not what is disclosed in applicant’s specification. The examiner suspects that applicant did not mean for this interpretation to apply to the claim and suspects it to be the result of a 112, second paragraph problem. If applicant were to fix this problem so that the invention disclosed in claim 3 is more along the lines of the invention actually disclosed in pages 24-27 of the specification, claim 3 would appear to differentiate from the prior art of record. Note that applicant would also have to include all the limitations of the base claim and intervening claims. The prior art does not appear to disclose an identifier corresponding to a terminal connector being used to determining how much to bit shift data when enciphering and deciphering in the context of a switching device recited in claims 1-3. Claims 9 and 21 recite a similar limitation

and have similar problems. Claim 21 is an independent claim having claims 22-24 as dependent claims.

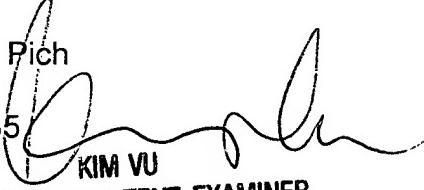
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PP

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